

U.S. DEPARTMENT OF COMMERCE



August 15, 1984

To : Maurice

From: Guy

A handwritten signature, likely of Guy, is written next to the "From:" field.

Maurice,

The body of the 232 is largely unclassified. The Recommendation section should be closely held, however, because it will influence our negotiating position with Japan.

Not referred to DOC. Waiver applies.

A large handwritten signature, possibly "F. L.", is written above a long, sweeping checkmark.

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THE EFFECT OF IMPORTS OF MACHINE TOOLS
ON THE NATIONAL SECURITY

Report to the President on an Investigation
Conducted Under the Authority of Section 232
of the Trade Expansion Act of 1962,
As Amended (19 USC 1862)

U.S. Department of Commerce
International Trade Administration
Washington, DC 20230

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EXECUTIVE SUMMARY

On March 14, 1983 the Department of Commerce (DOC) accepted a petition by the National Machine Tool Builders Association (NMTBA) to conduct an investigation to determine the impact of machine tool imports on the national security pursuant to Section 232 of the 1962 Trade Expansion Act, as amended. The NMTBA requested that a five year regime of quotas be imposed on 18 categories of metal-forming and metal-cutting machine tools to limit total foreign sales to 47.5% of U.S. domestic consumption.

The Department of Commerce conducted an extensive investigation in consultation with a number of other Federal agencies and departments based on the analytic criteria set forth in the regulations. The investigation focused upon the impact of imports on the U.S. ability to obtain machine tools from domestic and foreign sources to meet the requirements for a one year mobilization followed by a three year global war.

As part of its analysis, the Department examined past, current and prospective trends in the machine tool industry in order to assess the impact of imports on overall domestic manufacturing capabilities.

It was shown that this industry is unusually sensitive to cyclical changes in the economy. In 1979, capacity utilization was at 76%. It was 36% at the end of 1982.

The machine tool industry generally maintained a healthy profit level through 1981 despite its sensitivity to the business cycle. It is estimated that the industry incurred losses in 1983 for the first time since 1971-72.

Employment in the machine tool industry increased in tandem with domestic shipments during 1979-80. However, in 1981 employment began to decline rapidly. It is unlikely that workers who are displaced from the industry will find new, related employment which would permit them to retain critical skills. This is a serious concern because it will be difficult to replace a skilled machine tool labor force. In some skill areas, maximum proficiency takes over five years to develop.

With regard to competitive factors, the Department noted that the U.S. machine tool industry manufactures quality, high technology products that are the principal choices of many end-users. However, with regard to the more standard-type machines, foreign products are generally considered to be reliable, less expensive, easier to obtain in a timely manner, and easier to service than those of their U.S. counterparts. It is anticipated that any near term increases in machine tool orders will be in product lines in which foreign manufacturers have a competitive advantage. Therefore, during economic recovery, it is expected that the U.S. machine tool

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industry may improve at a slower rate than other sectors of the economy, and that imports will continue to increase their penetration of the U.S. market.

As part of its analysis, the Department also examined the impact of U.S. Government programs and regulations to evaluate whether they have a positive, neutral, or negative impact on U.S. ability to meet emergency mobilization requirements. It was determined that most U.S. Government programs and regulations either have a neutral or positive impact on the U.S. ability to meet mobilization requirements. However, it should be noted that the two programs which have a direct mobilization purpose may not have the intended positive impact in a national emergency. In the first, the reserve machines held by the Defense Department are old and few are numerically controlled. In the second, the Machine Tool Trigger Order Program assists the Federal government in obtaining tools in an emergency but does nothing to help expand or preserve domestic production capacity, and becomes less effective as the production base contracts.

After assessing the significance of the above noted factors, the Department followed a two-step procedure to reach findings for each category of machine tool under investigation: 1) machine tool requirements for a three year war preceded by a one year mobilization (i.e., the Emergency Mobilization Planning Board approved scenario for industrial mobilization planning) were compared with the anticipated total available supply from domestic production, inventories, and reliable foreign suppliers; and 2) in those cases in which direct defense, indirect defense, and civilian requirements could not be met by a combination of domestic production, inventories and reliable foreign supplies, an analysis was made to determine whether the national security shortfall is due to import penetration.

The Federal Emergency Management Agency (FEMA) provided mobilization and wartime requirements for each of the eighteen categories of machine tools based on military expenditure patterns developed by the Department of Defense and FEMA's own projections of civilian requirements.

In order to estimate the mobilization capabilities of the U.S. industry to meet the above noted requirements, the Department conducted a comprehensive survey of machine tool manufacturers. The survey indicated that, for many categories of machine tools, U.S. production capabilities alone will not be adequate to meet emergency requirements. The survey further indicated that the mobilization capacity of the industry expanded during the 1978-82 period, but that no growth can be expected during 1983-85.

The Department also conducted a survey of domestic machine tool importers to determine inventory levels that could be made available in a national emergency.

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The Department relied on foreign availability assessments provided by the Departments of State, Defense and Energy as well as the CIA. The analyses were used in conjunction with the Department's own evaluations of foreign production capabilities to estimate the U.S. ability to supplement domestic production with reliable imports.

Based on the analytic criteria set forth in the statute and regulations, the Department concluded that, for the following machine tool categories, imports do not threaten to impair the national security (negative finding):

Drilling - There would no shortfalls, machines are readily available from all major producers, imports are declining as a percentage of domestic consumption, and mobilization production capacity has increased significantly.

Gear Cutting - There would be no shortfalls and imports are readily available. Also, the absolute number of imports has decreased while mobilization capacity has increased.

Grinding and Polishing - There would be a shortfall which could not necessarily be met by reliable imports. However, there has been a decline in the absolute number of imports for the past three years, and there has been an increase in mobilization production capacity.

Non-NC Lathes - Based on domestic supplies, there would be small shortfalls through the first conflict year and mobilization capacity has declined slightly in the past five years. However, imports are available from reliable suppliers and imports have declined in absolute terms.

Milling - Based on domestic supplies, there would be a shortfall during the mobilization period and imports as a percentage of domestic consumption have risen. However, the foreign availability of milling machines is high and imports have declined in absolute terms since 1980.

Station Type - Based on domestic supplies, there would be a shortfall through the first conflict year. Reliable imports would be available, but probably not in adequate quantities to fill the gap. However, import penetration has been very low--any shortfall cannot be attributed to import penetration.

Punching and Shearing - There would be a surplus of NC machines for all four years which could be used to partially meet the shortfall in non-NC machines, which is expected to exist through the first conflict year. Reliable imports are expected to be available for both NC and non-NC categories, and have remained essentially stable in absolute terms while

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domestic shipments have declined. Mobilization capacity has more than doubled for NC machines, and declined only slightly for non-NC machines.

Bending and Forming - Based on domestic supplies, there would be a shortage of non-NC machines through the first conflict year and of NC machines during the mobilization period. Also, import penetration has increased for bending and forming machines overall. However, substantial quantities of both types of machines should be available prior to the outbreak of hostilities and mobilization capacity has increased during the 1978-82 period.

Presses - Based on domestic supplies, there would be a shortfall through the first conflict year. However, imports are expected to be available during the mobilization period and during each war year. Imports as a percentage of domestic consumption have increased due to the fact that the absolute number of imports has remained stable in the face of declining domestic consumption. Any shortfall that may arise cannot be directly attributed to import penetration.

Other Metal-cutting and Metal-forming - No systematic or reasonable means for disaggregating the "other" category into specific types of machine tools could be identified and used. Some machines in the "other" category are manufactured only by foreign suppliers. It therefore would be inimical to our security interests to adjust imports of these machines. Furthermore, mobilization capacity increased during the 1978-82 period.

The Department concluded that, for the following categories, imports pose a threat to the national security (positive finding):

Boring - There are shortfalls that cannot be met by total available supplies. Imports have increased their share of the U.S. market at a rapid rate and now account for most of the domestic market. In fact, the absolute number of imports increased even during the economic recession. In light of these developments, domestic shipments fell to only 120 machines during the first half of 1983, compared with 685 machines for the first six months of 1982. Unlike most other categories of machine tools, domestic capacity declined during the 1978-82 period, and the DOC survey anticipates no significant increases through 1985. The threat to national security would be further exacerbated by any additional loss of capacity resulting from import penetration.

Horizontal NC Lathes - There are substantial projected shortfalls that cannot be met by anticipated total supplies.

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There is a need for an expanding domestic production capability because the U.S. cannot be assured of obtaining requisite supplies from foreign manufacturers in a national security emergency. NC turning machines are particularly important to the national security due to their key role in flexible manufacturing systems (FMS). Such systems are essential to improvement in both the quality and efficiency of weapons systems production.

- Although there has been some growth in capacity to produce NC turning machines during 1978-82, no growth is expected through 1985. Rising import penetration has impeded the expansion of the U.S. industry that is required for national security purposes. It will not be possible to maintain current mobilization capacity, much less achieve the required growth, with imports capturing the majority of the market. Further, it should be noted that importers are presently holding a large stock of horizontal NC turning machines that are available for sale. This inventory will further exacerbate recovery problems for the U.S. industry.

Vertical NC Lathes - There are substantial projected supply shortfalls that cannot be met by total available supplies. In view of the above, the U.S. requires a growing capability to manufacture vertical NC machines. Import penetration is high, thereby impeding needed growth in the U.S. industry for national security purposes.

NC turning machines are particularly important to the national security due to their key role in flexible manufacturing systems (FMS), which are essential to improving both the quality and efficiency of weapons systems production.

Machining Centers - There are substantial projected machining center shortfalls that cannot be met by anticipated total supplies. There is a need for an expanding domestic production capability because the U.S. cannot be assured of obtaining requisite supplies from foreign manufacturers in a national security emergency. Imports have been impeding the growth of the U.S. industry by rapidly increasing their market penetration, while U.S. shipments have declined each year since 1980. The U.S. requires a growing machining center production capability for national security purposes, and inventories being held by importers will tend to delay the recovery of the U.S. machining center industry when the market improves. The clear and present danger to national security would be further exacerbated by any additional loss of capacity resulting from import penetration.

Machining centers are particularly important to the national

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security due to their key role in flexible manufacturing systems (FMS), which are essential to improving both the quality and quantity of weapon systems production.

Forging - There are projected shortfalls that cannot be met by total available supplies. Imports have substantially increased their share of the market, while domestic shipments have rapidly declined. In light of these developments, there has been a major decline in U.S. forging machine capacity. Had the U.S. not lost this capacity during the 1978-82 period, it would be able to meet mobilization requirements. In order to alleviate the national security threat, it is necessary to prevent further erosion of U.S. mobilization capacity, and hopefully to recapture lost capacity.

In view of the above, the Secretary of Commerce proposes that a three year volume quota be imposed on four of the categories of imports that pose a national security threat, with an option for at least a two year extension.

The recommended quota levels, based on units of imports are:

machining centers	25%
horizontal NC lathes	45%
vertical NC lathes	50%
boring machines	35%

In addition, it is recommended that the Department of Commerce make an assessment at the beginning of the third year to determine whether the national security objectives of the actions are being met.

With regard to forging machines, a trade remedy is not recommended. Rather, the Secretary proposes that DOD stockpile forging machines in adequate quantities to meet mobilization requirements. Furthermore, the Secretary proposes that a number of other non-trade actions be taken to help maintain national security production capacity for machine tools. These include establishment of a Machine Tool Advisory Committee, a reevaluation by DOD of the overall needs of the defense stockpile of machine tools, and a review by the Trade Policy Committee of the impact of removing GSP coverage for all machine tools with emphasis on low-value boring machines.

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